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20210 7590 03/23/2009

DAVIS & BUJOLD, P.L.L.C.
112 PLEASANT STREET
CONCORD, NH 03301

EXAMINER

SCHARICHI, MARC A

ART UNIT

PAPER NUMBER

3611

DATE MAILED: 03/23/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,042	02/15/2006	Rene Donnard	MEITPAT P79AU/S	6142

TITLE OF INVENTION: HITCH COUPLING ASSEMBLY WHICH DAMPENS THE HUNTING MOVEMENTS OF ROAD TRAILER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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20210 7590 03/23/2009

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,042 02/15/2006

Rene Donnard

MEITPAT P79AU/S

6142

TITLE OF INVENTION: HITCH COUPLING ASSEMBLY WHICH DAMPENS THE HUNTING MOVEMENTS OF ROAD TRAILER

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nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/23/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
SCHARICH, MARC A	3611	280-492000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

1

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/562,042	02/15/2006	Rene Donnard	METPAT P79AUS	6142
20210	7590	03/23/2009	EXAMINER	
SCHARICH, MARC A				
ART UNIT			PAPER NUMBER	

3611

DATE MAILED: 03/23/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 536 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 536 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability**Application No.**

10/562,042

Applicant(s)

DONNARD, RENE

Examiner

MARC A. SCHARICH

Art Unit

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- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/22/2008.
2. ☒ The allowed claim(s) is/are 21-40.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413)
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney Jay S. Franklin on 3/9/2009, as such amendments to the claims (*as established below*) were conceived during collaboration between the Examiner and Mr. Franklin. *The application has been amended as follows:*

Amendments to the Claims

(Claims 21-40 are amended as follows):

-- 21. An articulating coupling (4) ~~for a vehicle assembly formed of a motor vehicle (1) and a trailer (2) comprising friction surfaces for damping yaw movement between the motor vehicle (1) and the trailer (2), the articulating coupling comprising a first pivot articulation (12), which only allows the yaw movements, having a pivoting disc device (40) for damping the yaw movement between the vehicle (1) and the trailer, said first pivot articulation being housed within a closed space which is protected from incoming pollution, and a second articulation (21), which allows both rolling and pitching movement and transmits the yaw movement between the motor vehicle (1) and the trailer (2) to the first pivot articulation without play, a first axle enabling the yaw movement between the motor vehicle (1) and the trailer (2) is completely~~

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~~disconnected from other axes enabling the rolling and the pitching movements comprising:~~

a first pivot articulation (12) pivotable about a vertical axis, which facilitates pivotal yaw movement and rolling movement between a motor vehicle (1) and a trailer (2), having a disc device (40) with pivoting friction surfaces for damping the pivotal yaw movement between the motor vehicle (1) and the trailer (2), the first pivot articulation (12) being enclosed within a closed space to seal the first pivot articulation (12) from incoming pollution; and

a second pivot articulation (21) pivotally coupled to the first pivot articulation (12) and pivotable about a single horizontal axis with respect to the vertical pivot axis of the first pivot articulation, to facilitate only pitch movement between the motor vehicle (1) and the trailer (2), the second pivot articulation (21) being laterally fixed to the first pivot articulation (12) in a rigid manner to inhibit play therebetween and to transmit only the rolling movement and the yaw movement between the first pivot articulation (12) and the trailer (2). --

-- 22. The articulating coupling ~~for a vehicle assembly~~ according to claim 21, wherein the first pivot articulation allowing the yaw movement has a bearing rim. --

-- 23. The articulating coupling ~~for a vehicle assembly~~ according to claim 21, wherein the second pivot articulation (21), which allows transmits the rolling and pitching movement (21), prevents movement and the yaw movement between

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the first pivot articulation (12) and the trailer (2) inhibits play in the rolling movement and the yaw movement between the first pivot articulation (12) and the trailer (2). --

-- 24. The articulating coupling ~~for a vehicle assembly~~ according to claim 23, wherein an absence of play during the yaw movement is ensured by uniform planar contact between two planar surfaces (37, 38) of the first pivot articulation and the second pivot articulation (21), ~~which permits both rolling and pitching movement, and the second pivot articulation~~ is located vertically above the first pivot articulation (12), ~~which only allows the yaw movements.~~ --

-- 25. The articulating coupling ~~for a vehicle assembly~~ according to claim 21, wherein the second pivot articulation (21), ~~which allows the rolling and pitching movement~~ is a spherically shaped articulation. --

-- 26. The articulating coupling ~~for a vehicle assembly~~ according to claim 25, wherein the second pivot articulation (21), ~~which allows the rolling and pitching movement~~, has a transverse axle (23) with two aligned rings (29, 30) that have complementary spherical shapes. --

-- 27. The articulating coupling ~~for a vehicle assembly~~ according to claim 26, wherein the two rings (29, 30) are attached without in a rigid manner to inhibit any possibility of lateral play being assimilated by the yaw movement. --

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-- 28. The articulating coupling ~~for a vehicle assembly~~ according to claim 21, wherein the **pivoting** disc device (40) for damping the yaw movement has at least one disc (41) with a friction surface that communicates with at least one opposing surface which is biased against the at least one disc (41) by a compression system that exerts an axial compression force on the at least one disc (41), at least one of said opposing surfaces being a friction surface. --

-- 29. The articulating coupling ~~for a vehicle assembly~~ according to claim 28, wherein the **pivoting** disc device (40) for damping the yaw movement comprises a stack of ~~friction~~ discs (41) with friction surfaces, the discs (41) are alternately connected to one of the motor vehicle (1) or to the trailer (2), so as to pivot in relation to one another under the influence of the yaw movement. --

-- 30. The articulating coupling ~~for a vehicle assembly~~ according to claim 29, wherein the stack of ~~friction~~ discs (41) with frictions surfaces contains at least one fixed disc (48) that is integral with a central hub (42) that is fixed in relation to the motor vehicle (1) and at least one movable disc (49) that is integral with a peripheral drum (43) that is movable in relation to the motor vehicle. --

-- 31. The articulating coupling ~~for a vehicle assembly~~ according to claim 30, wherein an exterior wall (46) of the central hub (42) has notches and at least one of the fixed discs (48) has complementary notches on an interior periphery around a cutout (50) so that the fixed discs (48) remain fixed as the stack of ~~friction~~ discs (41) pivot in relation to the central hub (42). --

-- 32. The articulating coupling ~~for a vehicle assembly~~ according to claim 30, wherein an interior wall (47) of the peripheral drum (43) has notches and at least one of the movable discs (49) has complementary notches on an exterior periphery so that the ~~periferal~~ peripheral drum (43) engages and pivots the movable disc (49). --

-- 33. The articulating coupling ~~for a vehicle assembly~~ according to claim 29, wherein the compression system comprises a cupel (54) that biases the at least one disc (41) such that the friction surfaces completely contact one another. --

-- 34. The articulating coupling ~~for a vehicle assembly~~ according to claim 28, wherein the compression system of the ~~pivoting~~ disc device (40) is a mechanical system. --

-- 35. The articulating coupling ~~for a vehicle assembly~~ according to claim 34, wherein the mechanical compression system of the ~~pivoting~~ disc device (40) comprises at least one spring (52). --

-- 36. The articulating coupling ~~for a vehicle assembly~~ according to claim 34, wherein the mechanical compression system of the ~~pivoting~~ disc device (40) cooperates with a damping deactivation device that ~~one of either~~ reduces or interrupts damping of the yaw movement below a certain travel speed. --

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-- 37. The articulating coupling ~~for a vehicle assembly~~ according to claim 36, wherein the damping deactivation device exerts axial force in a direction opposite to the compression force, thereby freeing the friction surfaces. --

-- 38. The articulating coupling ~~for a vehicle assembly~~ according to claim 28, wherein the compression system of the ~~pivoting~~ disc device (40) is one of a pneumatic, hydraulic, or electric system and exerts an axial compression force. --

-- 39. The articulating coupling ~~for a vehicle assembly~~ according to claim 38, wherein the articulating coupling further comprises a control circuit for regulating the axial compression force applied by the hydraulic, pneumatic, or electric compression system. --

-- 40. The articulating coupling ~~for a vehicle assembly~~ according to claim ~~[[21]]~~ 30, wherein an exterior wall (8) of the articulating coupling has a threaded transverse opening (57) located opposite a bore (44) in the central hub (42) for one of measurement of wear on the ~~friction stack of~~ discs (41) with friction surfaces or for insertion of a threaded axle to exert increasing pressure on a cupel (54) and free the ~~friction stack of~~ discs (41). --

Reasons for Allowance

Claims 21-40 are allowable due to independent claim 21 claiming an articulated coupling reciting *at least (in combination)*:

- A first pivot articulation pivotable about a vertical axis
- The first pivot articulation having a disc device with pivoting friction surfaces
- The first pivot articulation being enclosed within an closed space to seal the first pivot articulation
- The first pivot articulation facilitating pivotal yaw movement and rolling movement between a motor vehicle and a trailer **AND**
- A second pivot articulation pivotable about a horizontal axis relative to the vertical axis of the first pivot articulation
- The second pivot articulation facilitating only pitch movement between the motor vehicle and the trailer
- The second pivot articulation pivotally coupled to the first pivot articulation, and laterally fixed to the first pivot articulation in a rigid manner to inhibit play therebetween
- The second pivot articulation transmitting only the rolling movement and the yaw movement between the first pivot articulation and the trailer

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC A. SCHARICH whose telephone number

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is (571)272-3244. The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.S. – 3/13/2009

/Marc A. Scharich/
Patent Examiner
Art Unit 3611

/Paul N. Dickson/
Supervisory Patent Examiner, Art Unit 3611